carbon holders were made about two made. months later, and the changes in the dash pots were also completed about

Question: The changes in the stated to the committee. dash pots and carbon holders were made in two months.

Answer: Yes, sir. Question: I did not understand amperes.

recommending the the same changes? the individual lamps. Answer: In order to get it done. Question: It took two months to get it done?

Answer: Yes, sir. two letters within the two months?

your connections as engineer with perience in electric plants? the Alexandria Electric Company? Answer: In the month of June,

Question: As late as April and pany that has eighty-six arc lights in that.

As late as April and pany that has eighty-six arc lights in that.

Question: As late as April and pany that has eighty-six arc lights in that.

Question: Will you refer to your A. C. lamp, when adjusted for 70 to to what was done previous to that the same.

Question: As late as April and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

Question: As late as April and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pany that has eighty-six arc lights in that.

As determined and pan Question: As late as April and pany that has eighty-six arc lights in that. about this?

Answer: Yes, sir. two months what was the object of tempt to live up to its contract? your writing again in April and May when the changes had been made?

Answer: On the 23rd of Februthe service was improving and I did up the light all the time they don't ton and Duke Streets? not call his attention again to the live up to the contract.

Answer: I don't known

the lamps but the series coils, if they pany is furnishing the city proper know where it was put up. were changed?

that were recoiled?

not to save the current.

the lamps in the circuit? Answer: Yes, sir. Question: Assum Assuming that other lamps on King street, say the

candle power. if the trimming of the lamp were and he stated he did not consider that erally considered to be a 2,000 candle changed as you had recommended lamp the highest type lamp. Do you power lamp; assuming that this was that that would put the company in state the same thing? You answered so, and that among five bidders for a position to fulfill the terms of the Yes, sir. Mr. Spinks: That is the this franchise was one bidder that contract with the city. Do you mean lamp that was put in? Your answer bid specifically for the 6.6 ampere of general manager? to tell us that this unsatisfactory was, Yes, sir. That is the proper lamp at the rate of \$60 per year, do condition of the lights about whichr questions and your replies, is it? you have previously testified would be entirely remedied by that?

and in the behavior of the regula- entered into, was it?

Question: That is based on the erly trimmed and that the action of Wayne lamp that was on the market? the regulators are proper. Can you going through the lamps?

Question: How often did you visit the plant?

Answer: Twice a month and sometimes three or four times up to May, should have had 7.5 ampere lamps? Question: At the time you left the On the streets tonight they are burn- pere lamp is. company had the regulators been ing those same old lamps except that

to adjust the regulators?

was nothing he could do. Question: Was the defective condi- ing more than nine hundred-

tioin of the regulators ever changed while you were in the service of the that the present company has done company? Answer: No. sir.

since that time. Question: Do you think you can ago. You don't know anything about

change the series coil and that lamp will then perform satisfactory service with 7.5 coils in it? Answer: Yes, sir; you change the the present company has done any- that lamp you have been looking at ditional coils.

part which uses the current. justed?

Answer: I am not sufficiently fa- since you left the company? miliar with the different types of

lamp to say that. But the method pired? would be to take down the lamp and and put in new coils and test it on ago? the actual working circuit, which was always done here, then the lamp was adjusted to run on the regular cir- changes in the ampere coils in the lamp and put a new one up can't you? cuit, which ran into the room behind lamp, if it did not require changes in the office. There are different types the other parts of the lamps, and you do that. of lamp, even the same type of lamp answered that would depend on the manufactured in different years are type of the lamp; it would not depend Mr. Harlow and introduced by him sometimes different; you might have on that as to lamps manufactured by are as follows: to change one and not the other, and the same company in different years? then you test the coils and make such changes in the lamp as are necessary. if they are necessary.

Question: Were these lamps tested lamps? to your knowledge?

Answer: Those that were repaired were tested, yes, sir. Question: How many were repair-

Answer: All of them had the dash pots and the carbon holders changed.

these lamps here? Question: Then all were tested? Mr. Betts: Yes, sir.

Answer: The changes in the top change was supposed to have been 1905?

Answer: 1es, sir.

Question: Did you write the other said the behavior of the lamps. whether other converges within the two months? Mr. Fisher: I thought you said the were necessary?

Answer: No.

ary I wrote to Mr. McIver, and rethat you know of in this contract as what lamp that was. commended these changes again. If to the amount of stock that is to be Answer: I don't lead to the amount of stock that is to be

the arc lamps had not been cold implies of course that the company as being out every higher, and one pleted, and called his attention again must do everything in its power to of them was put in this, they made to the carbon holders. That was keep them going. Of course the that change and then the light got the report at the end of March. Here company is not obliged to keep any better right away. the report at the end of March. Here has been no deductions by the is a letter dated the 9th of April, in certain amount of stock on hand, but Question: As a matter of fact, was quiry of the 26th inst. with reference there has been no deductions by the is a letter dated the still of April, in cortain amount of stock of hand, out "Question. As a matter of fact, was which I told him that Mr. Uhler said if they have not the stock to keep that lamp on the corner of Washing-

keep on repeating the same thing. you consider the lamp they have a house lamp and put in on that cor-Question: At the time the changes proper lamp? Your answer was, No. ner? in the lamps were made from 6.6 to sir. Mr. Hill asked you, Do you in the tamps were made from the charged in think the Alexandria Electric Com- house lamp sent here, but I don't angle of distribution have necessarily the plant, believing there would be a present in use? light according to the contract made Answer: I believe not, except with the city? You answered, I do Answer: I believe not, except with the city: rou answered, I do Mr. Harlow: When was the Colthat a number of new lamps were not. Mr. Harlow asked you if this orado Springs decision rendered?

purchased. I don't know how many. company is furnishing this city propuration: I mean in the lamps or light according to the centract Question: This contract was en-Question: I mean in the lamps er light according to the centract Question: This contract was enlectric Light Association, it has been with the idea of giving service to the more satisfactory mumination. The Mr. Fisher: You say you never redecided and therefore established suburbs. We decided to put in a old lamp was more brilliant to look testimony being that of an expert is ceived any complaint about bad serimpartial, and that you are here as an vice?

Answer: Nothing but the one coil other report Mr. Hill asked you, Can 1906. Is it not a fact that at that for some years past that 7.5 ampere steam turbine which rates 625 kiloother words we have nowed to my knowledge.

Answer: I have just done that as a nominal 2 000 candle power other words we have nowed that will carry out that had 6.6 ampere lamps and that will carry out that had 6.6 ampere lamps and that will carry out that had 6.6 ampere lamps and that will carry out that had 6.6 ampere lamps and that will carry out that had 6.6 ampere lamps and that you are here as an vice?

Answer: I have just done that you are here as an vice?

Question: You say you never redecided to put in a old lamp was more brilliant to look testimony being that of an expert is ceived any complaint about bad serimpartial, and that you are here as an vice?

Question: Do you think that for expert. State your experience.

Answer: I have just done that as a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are enough in a city of this size there are e as changed to my knowledge. The Alexandria Electric Company time there were a great many cities series A. C. are system shall be rated watts, but has a capacity of 650; in Question: If in the evening when have a lamp made that will carry out that had 6.6 ampere lamps, and that as a nominal 2,000 candle power, other words we have more than tripacity that the tarme of the contract mode with those lamps were recorded as being. This is considered to held for any led the contract mode with those lamps were recorded as being. This is considered to held for any led the contract mode with those lamps were recorded as being. This is considered to held for any led the contract mode with those lamps were recorded as heing.

To the fact that if the How do you explain all that? current is at once brought up to the Mr. Betts: My interpretation of current is at once prought up to the sit. Detts. My interpretation of question. At the time of this conference of the considerably above the average for a full value of 7½, as the coils and the contract is that it was the intentract it had not been determined even nearly equal efficiency.

Considerably above the average for a time of this coil. At the ti the regulators warm up in the cirtion to furnish this city a street light. by the electric association that the
the regulators warm up in the cirtimony here is given by me as a dispower rating has been 9.6 ampere dria.

The standard taken of the cannot drive to the old of the standard taken of the cannot drive the standard taken of the cannot drive to the control of the cirtimony here is given by me as a dispower rating has been 9.6 ampere dria.

The standard taken of the cannot drive that is building an electrical water
open arc, which ever since its incepopen arc, which ever since its incepstarted at the full value at once, street lighting service, but I don't quirements?

Answer: No, sir. they ought to start at seven and two think they can be required to turnish or three-tenths and gradually bring it up. They they would not run that is to save the gas caps, risk. That is to save the gas caps, contract to use a flaming are light at that time was if not?

Lion nas been recognized as the 2,000 Fort Washington, Del Ray and other timely, and I don't want to be consulting to the James River, and I have suburban load, our total peak will not on the James River, and I have candle power and as the energy consuburban load, our total peak will not suburban load, our total peak will not on the James River, and I have candle power and as the energy consulting each of the suburban load, our total peak will not on the sidered as anything else, and I don't want to be consulting of the pass and it is built a number of other plants in the suburban load, our total peak will not of the 3.00 kilo-watts for lighting.

Our day load peak or motor load which is based on the records of other cities and cities in this State. Sincer for five concerns or cities that the present time is about 200 kilo-watts for lighting.

Our day load peak or motor load which is based on the records of other cities and cities in this State.

each lamp. Of course that has a it was taken for what it was.

greater candle power than any other the lamp, but it is used there for advertice in the city of Alexandria has a sufficient to operate ferent angle of distribution from the 10,000 more incandescent lamps, and ferent angle of distribution many more factories in the day time.

Allswel. It is was even discussed ing the same candle power at a different angle of distribution from the 10,000 more incandescent lamps, and guestion: Have y Question: Have y Question: Have y lamp on the corner of King and Fair- tising purposes; the city is nt paying number of lamps to light it?

lamp at the corner of King and speak of the city pays \$70 and the probable. So you think the city is me. Royal streets is burning brightly, merchants bay the resturer asked you sufficiently lighted? what is the cause of the royal and the other night is it possible for you to Answer: I don't go out tonight or in the mountain. go out tonight or in the morning and city ought to spend any more money Question: You have told us the take down certain designated lamps for lighting, but as to better lighting, candle power of a gas flame, of a and tell whether the coil in it was a four times as many lights could be piece of hot steel, and of the sun, 6.6 ampere coil or not? You ans- put in. what is the candle power of these wered, I don't think so. There may Question: The trees i arc lamps on the streets in the city be some mark on there that the fac- the lighting, don't they? tory people could distinguish. Mr.

Answer: 360 or 380, possibly 400 Spinks: Do you consider the Fort Wayne lamp a standard lamp? You Question: In answer to a question answered, I do not. Mr. Spinks: about the time in August, 1906, if asked by Mr. Harlow you said that That question was asked Mr. Kirby the 6.6 ampere lights were not gen-

> Answer: I believe so. Mr. Harlow: Mr. Betts, when you pere lamps at the rate of \$75. Granting that the cur- were asked whether that is a stand-

No answer. Mr. Spinks: Will you state whether

ago when I visited the plant frequent- pany not to give us the light we were had in mind furnishing 6.6 ampere factory. Mr. Kirby told me that all the arc lamps. I could not get Mr. paying for?

Mr. Betts: I hardly think that. were 6.6 ampere lamps and that they Had they been adjusted? new coils have been put in there, your report, I think, Answer: How do you mean adjust- Here is the question, if you had the purchasing of these lamps, would you comment on the case.
have purchased some other than the The Chairman: We can get that if Question: I understand you stated have purchased some other than the you had a man here from Fort Wayne Fort Wayne lamp, and you answered, we want it. adjust the regulators? Yes, sir. But they did not want to for reading it now. with the greatest loss was in the cities. I am at the present time Answer: He found no trouble with buy these carbon holders at \$21. It Mr. Harlow: I have several letters purchasing department. All the sup-building a plant, where I am consultthem, he said. In other words there took them more than two months to here that I would like to introduce plies are now bought on requisition ing engineer, at Bedford City.

Then I asked you, You don't know Mr. Weller to the stand. anything to better the conditions in called, was asked by Mr. Harlow: the last year? Your answer, No, sir. Question: Has it been done up to All your knowledge is about what pleted your testimony, have you ob- the lamps? happened before these people came in. served the behavior of the lamps you Answer: I know nothing about Yes, sir. Your connections with this could see on King Street and Royal company were severed over a year Street?

take a 6.6 ampere lamp and simply the conditions existing today? Mr. Betts: In what respect? Mr. Spinks: Here is your answer to ily. the question: You don't know that thing to better the conditions in the to my knowledge was taken down last Question: Nothing needs to be ad- last year? No, sir. You don't know night and a new lamp was installed with regard to the question of coils you have had with different cities, anything about what has transpired in its place. I suppose that new lamp only when you first came here?

> Answer: About what has trans- so, Mr. Hill? Mr. Spinks: You don't know what

Answer: No. sir. Mr. Fisher: I asked you about the

Mr. Betts: Yes, sir. Mr. Fisher: How often does the Fort Wayne Company get out new

Mr. Betts: I don't know that. year each of them may or may not show little changes that are made in arc lamps please be advised that the would like to insert. the lamp. Mr. Fisher: Have you examined

Mr. Fisher: Can you tell this com- tion concerning the points for consid-

Mr. Betts: No, I can't say. Of stated.

made from 6.6 to 7.5 you did not Answer: Yes, sir; they used 71/2 know whether any other change in the lamp was necessary or not? Answer: No, sir; that report re- Mr. F. R. Weller, Gen. Mgr. Alexan-

Answer: That was what Mr. Uhler

commended these changes again. If to the amount of stock that is to be Answer: I don't know. He said he saw it every morning, I think said it took all of two months to get them. On March 24th I wrote is to be maintained throughout the half dozen of these coiled pig tail entire time of the contract, and that holders and that lamp was reported the arc lamps had not been computed and called his attention again must do everything in its power to of them was not in this they made

Question: If in the evening when have a ramp made that will carry out that had been ampered tamps, and that as a nominal close cannot power, other words we have more than trip-number of lamps here to properly the current is on the light what is the terms of the contract made with those lamps were regarded as being This is considered to hold for any led the capacity of the plant, which the current is on the light what is that due to? the city, and you answered, Yes, sir. a nominal 2,000 candle power lamp? and all standard makes of arc lamps, has involved an investment of nearly

begins to flicker and flickers on that way for two or three hours, while other lamps on King street, say the Answer: I would put in about ows. Tungsten lamps on the back streets, ered any point which you would care plant, and feel sure they will be con-

Answer: I don't know that the

Question: The trees interfere with answered as follows:

Questions by Mr. Fisher: you think the bidders for this con-time.

I don't know what he thought. assumption that the proper current or not the lamp that was installed bidders met with the committee, and it from him? assumption that the proper current or not the lamp that was instance bidders met with the committee, and it from that is maintained and the lamps are prophere was the highest type of Fort talked over the question all the bids. Answer: Mr. Kirby on a number regarding the improvements he recwere in, the bids for the 6.6 ampere of occasions assured me that the ommended and which he said ought Mr. Betts: I think not. It was a lamp at \$60, and the successful bid- lamps were all right, and were 7 1/2 to be made; do you know to your ders who bid for 2,000 candle pow- ampere lamps. I have made a num- personal knowledge that those imstate whether the proper current is 6.6 ampere lamp.

ders who bid for 2,000 candle pow- ampere lamps. I have made a num- personal knowledge that it going through the lamps?

Mr. Spinks: Do you think it was er lamps at the rate of \$75, would ber of inspection trips around the provements had been made? Answer: Up to fourteen months the original intention of this com- you think that the successful bidder city myself and I found them satis-

lamps? Mr. Spinks: You say the lamps to read an editorial comment on the about this question of candle power that Mr. Betts was a theoretical man ere 6.6 ampere lamps and that they decision in the Colorado Springs case lamps, and for that reason we took and that he knew better. But when

Mr. Betts: No; this is an editorial

then we will close our side by calling exandria. Mr. R. C. Faught being here re- plant were you asured by Mr. Kirby lina, and I have had various experi-

can see they are giving full candle power and are operating satisfactor-

Mr. Spinks: I want to state that his ever drawing on me for any ad- ing to do with the making of the conis the one that is there now. Is that

Mr. Hill: Yes, sir.

Mr. Faught: O, yes, sir; you can been notified that the lamps were not candle power lamp. The letters above referred to by

Richmond, Virginia, May 27, 1907,

ing, Washington, D. C. rating in candle power of enclosed have here a letter to him which I there was considerable discussion. commonly accepted candle power rating of the 71/2 series enclosed arc L. E. Uhler.

We attache hereto special publicafrom your examination what eration when purchasing series A. C. newspaper that councilman Spinks Answer: Yes, sir.

inquiring as to the capacity of the If we can be of any further service Alexandria Electric Company's Plant

the case.

per, J. C. Warren, Jr. take the liberty of writing for the what was known commercially as charge under the contract? Westinghouse Elec. & M'f'g Co. purpose of submitting the facts in 2,000 candle power.

As to street arc lamps the contract dria Electric Company, Hibbs between the city and the Plant calls have never accepted this as being case? the company, but to the behavior of current had been 6.6 amperes. That die power of the 7.5 ampere A. C. 2,000 c. p. and said rating is accept. Answer: Across the individual lamps.

amount did not appear to give suflamps. I, of course, do not know the ed by engineers central stations and should be about 77.

Mr. Harlow: He did not say anyficient light, and it was necessary for details of your contract, but would municipalities. There has been a Question: How are them to change the coils to 7.5 so as say that the 7.5 ampere amply fulfills number of legal decisions which regulated? to get a greater amount of current. the requirements of the so-called have arisen over the definition of the Answer: By a constant current of the So-called have arisen over the definition of the Answer: By a constant current. Question: You did not know 2,000 candle power lamp, which is, term candle power. The Colorado regulator at the power house. Mr. Betts: No, sir; I did not. I Question: 100 did not know 2,000 candle power lamp, which is, term candle power. The Colorado regulator said the behavior of the lamps.

Whether other changes in the lamp you probably know, a nominal rating Springs case is probably the most Question.

Mr. Fisher: I thought you said the were necessary?

Mr. Fisher: I thought you said the lamps, that employees; if you said the lamps, that Answer: No, sir. That would not adopted at the very beginning of the it was decided that 7.5 ampere series do they? Answer: Yes, sir.

employees; if you said the lamps, that Answer: No, sir. That would not adopted at the very beginning of the it was decided that 7.5 ampere series and the lamps, that Answer: No, sir. That would not adopted at the very beginning of the it was decided that 7.5 ampere series are lighting business. In later years are lamps were equivalent to 2,000 when did you sever is all right. Have you had any extem; that had to do with the lamps the 2,000 candle power has come to candle power. To my personal knowerience in electric plants:

tem; that had to do with the lamps the 2,000 candle power has come to candle power. To my personal knowthemselves. If they had a thousand be known by mutual consent of the ledge, I can state that since July 1st nating power?

Answer: Yes, sir.

Question: Do you think it proper coils to take out or lamps to change lighting companies and city author- the arc lamps have been on an averAnswer: So Question: Do you think it proper coils to take out or lamps to change individual management of an electric light com- this report had nothing to do with ities through the country as a lamp age of 7.5 ampere, which is shown on badly, of course, owing to individual management of an electric light com- this report had nothing to do with ities through the country as a lamp age of 7.5 ampere, which is shown on defects, but the system as a whole is taking 450 watts. The 7.5 ampere the daily log kept at the plant. As defects, but the system as a whole is ner globe or outer globe: letter of January 30th again. 10d 15 voits at the arc will consume from time, I have only the statement of Answer: I consider that very poor, state in here that one lamp in par- 515 to 530 watts so that you will see Mr. Betts, electrical engineer, and Question: Do you consider that ticular which has been reported as that your lamps must then fulfill the Mr. Kirby, the superintendent. Mr. Question: If you wrote in January and the changes were made in proper management or a proper at- being out every night is all right requirements of the 2,000 nominal Betts informed me that prior to our Trusting the above gives you the plied with the requirements of the

Question: Is there any provision Question: Tell this committee I will be glad to give any further as- I might further state we have three

F. R. Weller, G. M., Hibbs Bldg., and make hourly rounds of the city at night to see that all lamps are Dear Sir:—In response to your in- burning. During the last six months ampere series enclosed type arc shows that the service is satisfactory, company? lamps, beg to advise that the question As to the capacity of the plant, Question: Did the Alexandria of candle power on arc lamps of var- when we took the management of the way in which the lamp should be Mi. Spinks. Here's a question that Question. Did the Alexandria of candle power on are lamps of varwhen we took the management of the
trimmed because I did not want to was asked you the other night: Do Electric Company buy a Westing- ious wattage consumption has always plant on July 1st, I found the maxilluminating and central station engi- capacity installed, which was 340 Schuyler open arc lamp that used to matters? Answer: There was a Westing- neers, inasmuch as diffusion and the kilo-watts. We desired to enlarge well as the color of the light. How- electricity for lighting power, and al-Mr. Harlow: When was the Col- ever, at recent conferences of the so feeling that with the large surplus the light. The object of putting in large electrical construction company American Institute of American Elecof power manufacturers could be intrical Engineers and the National duced to come to Alexandria and also
the inner globe is to give greater disin Baltimore.

Questions by Question: This contract was en- Electric Light Association, it has been with the idea of giving service to the more satisfactory illumination. The

> Question: At the time of this con- tion requires any and all to be of Our present capacity of plant is considerably above the average for a

> > greater, than that of the 9.6 ampere at the present time is about 300 kilo-

mittee and also the members of the for light and power. I might say R. C. Campbell, Dist. Mgr. tinct circuits will be run from the power house to supply the suburbs.

ther information you might require, merely mention that to show what I something about it.

By F. R. Weller, General Manager. Answer: For the same period of Mr. Spinks: Did you get a reply to that letter?

Answer: Mr. Uhler acknowledged Question: Did you buy any gas

Question: You have heard the recommendations which Mr. Betts read ed in the suburbs.

Answer: Except the trimming of the lamps had 71/2 ampere coils in Kirby to trim the lamps in accord-

do that, and when it comes to spend- from various electric companies, and from the Superintendent here in Al- have been consulting engineer for these people if it were not to their fifteenth of November, about that the city of Richmond, Virginia, and representatives in Council? Question: When you bought the for four or five towns in North Caro-

Question: In the electrical world

generally accepted as such. Question: Was it at the time edge; I knew there were some 7½ entered into this contract? ampere coils on hand; I didn't recall Answer: I assume so. I Answer: I assume so. I had noth-

tract. Question: In all that work that

and for different cities, if you agreed Answer: I have asked him re- at this time to furnish such a lamp, peatedly, and he always assured me would you furnish a 71/2 ampere Answer: In the city of Oxford, in the system was I think 54 per cent bring it in and take out the old coils the company has done since a year is here. I will ask Mr. Howsell if that not amount to anything. As long North Carolina, we have the same as he was in our employ he did not contract as you have here, and we intimate that the lamps were not up put in 71/2 ampere lamps, and it is

stated in the contract just as it is in the way of improvement. Question: Has the company ever this, that the lamp is to be a 2,000 Mr. Spinks: Where did you say

we had was the notice we saw in the Springs decision in 1907, were there thousand dollars. Of course that inpapers that Councilman Spinks had many cities that were using 6.6 am- cludes some expense in the country. Mr. F. R. Weller, G. M., Alexand- introduced a resolution to that effect pere lamps, that were considered as ria Electric Company, Hibbs Build- into the city council. I took up the a nominal 2,000 candle power lamp?

Mr. Spinks: That contract between Colorado Springs and the Hu- and power in this city as compared dro Company was entered into in with other cities? 1898, eight years previous to the

desire information on this subject, I trators, of course, but the light was ing less than they are entitled to if the coils had been changed, and I

Mr. Spinks: The Colorado Springs

Answer: Yes, sir. Question: And the same illumi- proper. You could have him come

Answer: Some lamp might act self, if y badly, of course, owing to individual witness. Question: What would be the ef- hear it, we will state it; I understand ple, which was why he wrote.

lamp on the same circuit? Answer: Why, you would be feed- want to hear it, that is something ing more energy into the coil of the else. 6.6 lamp than it is designed for, and

were all of the same kind, of course, to have personal knowledge. I want amount. that is plain, I think. The smaller you to remember that all the testi-Philadelphia, Pa., May 27, 1910, Mr. whose duty it is to trim the lamps lamps would burn up all the time.

night, did they not? Answer: Not to my knowledge. Mr. Harlow: My question was, would it be any advantage to the ident; J. C. M. Lucas, Vice-President, four days ago that they would be in

all the time.

Question: What is the difference

this opinion?

Mr. Weller: Yes, sir.

I shall be pleased to appear before population, 120 arc lamps; HagersAnswer: I would not state that I your committee and furnish any furtown, Md., 15,670, 160 lamps. I am an expert; but I think that I know

the official blue book. vate companies?

nicipal plant. I think Frederick is. been under my supervision. Mr. Fisher: Do they all use Fort Wayne lamps? What is the name of an inspection? that book from which you read? Answer: McGraw's Blue Book.

Mr. Harlow: How could the lighting be improved? group lights together, as he suggest- neer for all these other things?

corner sufficient? it would be a little more expensive ficient assistants. than putting incandescent lamps. ton, and you can go over there and supervision? find that the lights go out; all lamps Mr. Betts: I would like permission them. I might state here that I knew ance with those directions. He said will go out, you know; you can't stop engineer gives to the work. that. We don't claim that these

lamps are perfect. Mr. Spinks: You are here as an ex-

very little complaint outside of the ments here. City Council. We have not been notwith the greatest loss was in the cities. I am at the present time ified that there was any complaint, ted? Mr. Spinks: Who do you suppose I the complaints would be made to by until the early part or the tenth or

> light committee stated that he had Alexandria then. Mr. Spinks: You have just read a around town at night?

Answer: Yes, sir. since your associates took charge here done anything to improve the been in the city of Alexandria since service generally?

Answer: Yes, sir. Question: What have you done? Answer: My letter covers some of it, but one of the most important pieces of work as to improving the system, we have replaced the cross think that is a question for the comarms on these poles, which has bettered the system, clearing the lines of troubles. Last July the total loss month it was under twenty-one. That and at the plant and office?

how four or five different directions, and Approximately much money have you spent while coming up Duke Street and Royal you have been here improving the Street and Prince. I have been out service? Answer: With the extensions and

Question: Prior to the Colorado vice between forty and forty-five that the lamps are all right? Mr. Spinks: All that money was not spent in improving the service in Answer: I said it was not. Some

Question: What have you got to say with regard to the rate for light Answer: It is lower here than in

Question: Even then they consid- It is due to an error in the clerical chased this plant you were satisfied Nor answer.

Nor answer.

In a manual in the Mandeville proposition. yourself of that?

Mr. Spinks: That case was nothing It is due to a mistake by some one Answer: I we like this. That case was settled by when the first bills were made out.

two private parties.

Question: In other words the Al- proper plate on them, and I wrote to Answer: It was settled by arbi- exandria Electric Company is charg- the Fort Wayne Company, and asked

people had to accept their light. We the experts in the Colorado Springs they knew in the matter. Here is

What should be the conversation with him within the last deville: Dear Sir; Referring to our

Question: How are these currents get away from his legal habit of ob- dria from 6 1/2 to 7 1/2 amperes. The Answer: By a constant current thing that will throw any light on the next month as requested. subject I think it is proper before an very truly, T. L. Sturgeon, Manager, Question: All the lamps on the investigating committee. If the com- Philadelphia Office, per C. A. Woolsame circuit have the same current, mittee don't want to hear it, why it sey.

is all right, of course. here and make the statement for himself, if you want to examine him as a Mandeville connected with this com-Mr. Harlow: If the committee is

fect of a 6.6 ampere and 7.5 ampere that you want light on the subject, Question: He we lamp on the same circuit? we are trying to get it. If you don't with the company?

been from people who had knowledge Trusting the above gives you the information desired, and assuring you I will be glad to give any further assistance possible in this matter, I am, Yours very truly, General Electric Company, General Electric Company, General Electric Company, Amount amount of the increased of the conditions. All your testing twould burn up. Question: Would a 6.6 ampere of the conditions. All your testing two would burn up. Question: Would a 6.6 ampere of the conditions. All your testing the above gives you the it would burn up. Question: You say your supering the above gives you the would burn up. Question: You say your supering the above gives your supering the above gives you have needed to supplie the conditions. All your testing the conditions are of the conditions. All your testing you for supplies. Do you always have 150 are lamps, where as there are only 87 now installed, so we have are only 87 now installed, so we have a would give more trouble than it is designed. The provided it would burn up. Question: You say your supering the conditions. All your testing you for supplies. Do you always have 150 are lamps, where as there are only 87 now installed, so we have a would give more trouble than it is designed. The provided it would burn up.

Yours very truly, Answer: Absolutely no benefit. It would burn up.

Answer: Absolutely no bene

Mr. Spinks: Three burned out last personal knowledge. Who are the outer and inner globes. present owners and directors of the company?

> directors. Question: Have any of them know- Mr. Howsell tells me that your com-

be used here and the lamp that is at Answer: Mr. J. C. Lucas is the Dis- all day, but they have not been calltrict Manager for the Baltimore Dis- ed for. Answer: The principal difference trict of the Aliss Chalmers Company,

Answer: I have been engineer for

a number of different cities and cor-Question: Upon what do you base porations, I am engineer for the Ten- some of the lamps burned rednessee Power Company, I am engi-Answer: I consider that this tes- neer at the Wataugua River, I am Mr. Uhler to have an examination timony here is given by me as a dis- engineer for Bedford City, Virginia, made?

Answer: Yes, sir. Answer: In the construction of a munber or plants in the last seven

Answer: I would not state that I Council.

mean. These figures are taken from Question: You state that you made in Council, and you said an inspection, and make inspections heard of any complaints or

Answer: Every day in the week,

up to a month ago. Question: How could you devote so much of your attention to Alexan-

Question: Your supervision, of the vious to this you had no conversation

Mr. Harlow: You mean personal supervision of what? Mr. Fisher: Of the whole thing. The witness: Yes, I gave personal

Question: When was that comple-

tim; the turbine was completed about Mr. Uhler. Answer: Your Chairman of the that time and I made daily trips to

> your inspection? Answer: Practically at all hours. Question: How often have you ity to do it. the completion of the ilstallation of November 12th, and presume it was

Answer: At least once a week. Question: Where do you go?

o'clock in the evening?

business. Is not the only condition Last you see the condition on King Street Answer: No, looking around from King Street you can see the lamps in

in this section of the town at night. Question: You say you have a any occasion to make the offer? the improvements to the present ser- man who makes an hourly visit to see

makes it three times a night? Answer: He makes a report every terrupt you, but they will have to go morning. If he sees that a lamp if they want to get the train. needs fixing on the first round he fixes it and then he goes back to see Weller at any time. I suppose you how it is.

Question: Does he only go to within a square of the lamps or to the the city for two or three days, but I lamps?

Answer: I went to the plant and saw the regulators. Tay had the Question: In other words the Al- proper plate on them, and I wrote to received a letter in reply which I will read. I had Mr. Mandeville write Question: Do you know any of the letter, because he was the man the letter which is dated June 28, Answer: Yes, Mr. Marks. I had a 1909, and is addressed to Mr. Manconversation this morning relative to Mr. Fisher: That conversation is the arc lamp situation at Alexandria would state that we have changed Mr. Harlow: Mr. Fisher cannot over all of the arc lamps in Alexanjecting to things. I take it that any- writer will see you the fore part of

all right, of course. Question: According to that the Mr. Spinks: I don't think that is Fort Wayne people made the change? Answer: They furnished the parts. Question: In June, 1909, was Mr.

pany? Answer: We purchased the plant willing to hear it or if you want to through him, and he knew these peo-Question: He was not connected

Answer: I don't know what his official connection was. We bought Mr. Spinks: Our testimony has all the plant through him. Question: You say your superin-

Question: Within what time has a mony we have had has been from requisition been made on you for Answer: About ten days ago for inner globes and three weeks ago for The witness: T. C. Coleman, Pres- outer globes, and I was informed H. B. Lucas, Secretary and Treas- Alexandria yesterday. They told me Mr. Spinks: That's our contention urer, these with Mr. Portner, are the on the phone at the National Electric Supply Company in Washington. briefly stated between an old style ledge of or experience in electrical mittee asked for two inner globes vesterday and he had them on hand

> Mr. Spinks: I understand he had Mr. Fisher: The committee can get the globes tomorrow, can they?

Answer: Yes, sir.

official complaint?

Question: You say you never re-

Answer: Mr. Uhler told me that Question: Did you ever offer for Answer: Yes, sir. Question: Why?

Answer: I felt we were unjusti

criticised-Question: I thought you had neve-Answer: I heard, of course, that in Council we were complained of. Question: I understood yo uto say you heard nothing until you heard

Answer: I said that I had no official complaint from Council Question: I asked you if you did Question: Where did you receive not offer to Mr. Uhler to have an expert go over the plant.

Answer: Because we felt that the Newport News' population 28,749, in the department of civil engineer- people in the City Council did not un-We wanted derstand the situation. Question: When did you first get

Answer: Yes, sir.

Question: Why?

Answer: O. I don't know that: it has been discussed a great deal in Question: In your letter of vember 12, you refer to a

until this resolution here was Answer: This resolution? Question: You said you had no notice from Council?

Answer: No official notice?

Question: Nor informal notice?

Answer: Except from Mr. Uhler. Question: You say you had no complaint from Mr. Uhler and this letter was written before the resolu-Answer: It might be difficult for tion was introduced into Council.

Question: You have said that pre-

That is the way they do in Washing- Alexandria company is not personal with Mr. Uhler and no notice of any complaint, yet you offered that the Answer: Yes, as much as any chief inspection be made? Answer: I will say that I have had number of conversations with Mr. Uhler: how many of these conversations preceded that letter I don't I made the positive offer on know.

> pay the costs of the expert. Question: Then you are not positive you did not receive a complaint Answer: I should say not finally previous to this resolution being introduced into Council?

Answer: I said I had a talk with Mr. Harrison: Mr. Uhler as Chairman of the Gas Light Committee, is Question: Have you ever been authorized to talk to the superintendent of the Alexandria Electric Company and any matter he brings Question: What was the hour of before that committee or that the committee wants brought to the attention of any one he has full author-

Question: You wrote this letter on the machinery, between 8 and 12 after the resolution in Council. Did you at any time previous to the letter, previous to the introduction of the resolution in Council ever re-Answer: Different places. I don't ceive a complaint from any member of the City Council in regard to your

> Answer: This is about the third time that I have said that Mr. Uhler told me that the lamps were burning red. That is the only complaint we have ever had. Question: Did you not make this offer to Mr. Uhler about the inspec-tion previous to November 12, 1909?

service?

Answer: I don't know about that. Question: If there had been no complaints, would there have been Answer: I don't know about that The Chairman: It is getting late now, and if the gentlemen here want

Mr. Harlow: We can recall Mr. will be in town.

to catch the last train, they will

have to go now. I don't want to in-

Answer: I am expecting to leave will be back the first of next week. Answer: He is supposed to see And after that I am at your disposal.

They whether the lamp is burning or not. The committee thereupon adjourn-

Answer: Yes. sir. Question: Was that after the change was made?

Question: How soon after your Answer: Yes, sir; a year after the year they were manufactured, whether what expected the solution in the question are lamps, and upon referring to has introduced a resolution in the question. Even then they consider the did they make these changes? It is due to an error in the clerical chased this plant you were satisfied as meaning a 2,000 candle force of the company the rates charge it was a 7.5 ampere system, what expected the company that they make these changes in the system was made that er in 1903, or 1902, or in 1906, or in pages 5 and 20 you will find where council inquiring into the question ered it as meaning a 2,000 candle force of the company the rates charge it was a 7.5 ampere system, what expected the company that they make these changes in the system was made that er in 1903, or 1902, or in 1906, or in pages 5 and 20 you will find where council inquiring into the question.

Question: Why do you say that? course they were manufactured be— If we can be of any further service Alexandria Electric Company's Plant on us.

Answer: I have taken it for grantfore they were sent here. That was we will ve very glad for you to call for the demand of service in Alexandria and suburbs.

The best of the demand of service in Alexandria and suburbs.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

The best of the demand of service in Alexandria Electric Company's Plant on us.

Mr. Fisher: At the time you made Question: You say they were test- this report that the change had been

Answer: I don't know. He said

Questions by Mr. Harlow:

Answer: Yes, sir. Mr. Fisher: Mr. Harlow has asked

tract had in mind furnishing 6.6 amere lamps at the rate of \$75. with Mr. Kirby while he was with the that to me and he said that I need Answer: I don't like to pass my company the question of arc lamps? not bother about it. rent is the correct amount, the only and lamp, will you say that was a opinion on what Mandeville thought. trouble I could see was in the lamps standard lamp when the contract was There seems to be a great difference tion we took up. In fact we took caps for the arc lamps? in the opinions of what he did think. up that question before we bought Question: Assuming that all the

Mr. Faught: Yes, sir; so far as I 71/2 ampere coils?

Mr. Howsell: Yes. sir. Mr. Spinks: You can take down a to the standard.

question with Mr. Uhler on several lamp is 2,000.

Washington, D. C.

Baltimore, May 27, 1910.

isk. Inat is to save the gas caps, city of Newara, New Series, has a a hominal 2,000 cannie power lamp greater, than that of the 9.6 ampere at the present time is about 300 kiloot to save the current.

Question: Should that apply to all and they pay \$280 per month for Answer: If it was ever discussed

Yours very truly, The Adams-Bagnall Elec. Co.

connected with this company? Answer: About a year. Question: How long have you been conected with it in the capacity

Question: Did you ever take up

Company?

Answer: That was the first quesplant Question: Did you find out about

when we bought the plant. stall for the purchase of supplies?

alled, was asked by Mr. Harlow: and by your own investigation that ence in power plants and electrical been satisfied.

Mr. Harlow: Since you have comthere were 7½ ampere coils in all work.

Mr. Spinks: Answer: Yes sir. Question: Has Mr. Kirby ever candle power lamp? drawn any requisition on you for

Answer: No sir, not to my knowl-

Question: Did you ask Mr. Kirby that the lamps were all right, and lamp? Mr. Spinks: Your superintendent he said that the dissatisfaction did

> up to the standard? Answer: Absolutely not; we have this was? never been notified that the service Answer: Oxford, North Carolina. was not satisfactory; the only notice

> > November 12th, 1909.

General Electric Company, are only 87 now installed, so we have ample capacity for the increased Sales Agent. needs of the city. The company employs one man,

Respectfully submitted. Alexandria Electric Co.,

Answer: Yes, on several

in which it is stated what a 6.6 am- particular care to see that the lamps we got our new superintendent I gave had been changed to 7½ ampere him instructions to trim the lamps in lamps. We were satisfied of that accordance with Mr. Betts' report. Then we bought the plant.

Question: What system did you inlall for the purchase of supplies?

Question: What system did you inlall for the purchase of supplies? stall for the purchase of supplies? other than Alexandria?

Answer: I have found that in Answer: Yes, sir. I have been I don't see any reason every plant that I had anything to do consulting engineer for a number of

> what is the generally accepted 2,000 Answer: A 71/2 ampere lamp is

Answer: It was not decided def- Alexandria city? Dear Sir:-In reply to your favor occasions, and he always assured me inately until the case you mention. They get out bulletins about once a of the 26th instant in regard to the that the lamps were satisfactory; I That always a question about which of it was spent in the county.

Question: Have you any statistics? struction, one plant will be completed Answer: Yes, sir. I will submit in two weeks, the other one will be Mr. Spinks had offered this resolution this: In Charlottesville, they have begun in about two weeks. In the event of my not having cov- City Council make inspection of our a population of 6,400, and there are 102 arc lamps, Alexandria with 15,- three million dollars? Answer: Yes, but in this city I I think they have enough arc lights, to have me explain. I would be pleas vinced that it is the company's description of the city pays \$70 and the probable of the city pays \$70 and the probable of the city is me. 000, 14,500, as is shown here, has to be ready to meet every demand population is 5,300, they have 43; your experience in electricity? Covington, Va., population 2,950; lation of 22.850, and have 278 lights; years. I graduated from Columbia Thereupon F. R. Weller, in answer and this will not interfere with the 141 lamps; Norfolk 70,000, 600 arc ing. to interrogatories propounded to him town service. Any break down in the lamps; Radford, population 3,300, 32 Question: You disappeared as follows: suburban line will not effect the city arc lamps; South Boston, 2,800, they trical engineering? Questions by Mr. Harlow: line. It is necessary, of course, to Mr. Harlow: You are the general greatly increase our present business anager of the Alexandria Electric in order to have related to the lamps; Winchester, population 5,161, subjects.

Question: When did you find the will not enect the city have 31; Suffolk, 2,835, they have 26 Answer: I took certain electrical your information about the criticism? manager of the Alexandria Electric in order to pay return on the large 100 lamps; Annapolis 9,000, 47 arc lamps; Frederick, Maryland, 9,986 pert?

Mr. Hill: Are these all run by pri- here in town?

rner sufficient? but I think that any engineer can un- Answer: The letter explains itself, Answer: I think it would be, but derstand that it is a matter of suf- I think. It seems to be clear.

letter there to which you said you never got any reply? Mr. Harlow: Has this company

of the current generated. I think shows what has been done in

City Council, Alexandria, Va. time we entered into the contract Other cities. The rate is three cents Dear Sir: I have seen in the with this company? ought to be higher than they are. Question: You say before you pur- ed.

Questions by Mr. Fisher: Mr. Fisher: You state that your

Question: They represent about

Question: You did not take elec- to stop the unjust criticism.

Answer: Yes, sir; all the work in duced by Mr. Spinks. Answer: No: Hagerstown is a mu- the changes and improvements has three weeks ago. Question: How often do you make

Answer: I agree with Mr. Betts- dria when you are consulting engi-The Chairman: Is a lamp on every you to understand that as a lawyer, why did you write the letter?

Answer: Yes, sir.

mittee. Question: Of course, I mean on

Answer: Yes, sir. Question: Don't you mean that he